

REMARKS

In the Office Action, claims 1-29 are pending and 30-37 are withdrawn from consideration. By the present response, claims 1, 2, 14, 15, 19, 21 and 26 are amended, and claims 30-37 are canceled. Reconsideration and allowance of all pending claims are requested. Upon entry of the amendments, claims 1-29 will remain pending in the application.

Rejections Under 35 U.S.C. § 102

The Examiner rejected claims 1-7 under 35 U.S.C. § 102(b) as being anticipated by Akioka. The Examiner stated that Akioka discloses in Table 3 (col. 12), sample 19, which contains Pr, comprising at least 30 weight percent and at least 50 atomic percent of the rare earth content of the composition; Fe comprising at least 50 weight percent of the transition metal content, Nd and Ce; and wherein the alloy contains 0.1 weight percent oxygen as mentioned at col. 10, line 2.

Applicants respectfully submit that claim 1 has been amended to more distinctly point out the claimed subject matter. The claim 1 recites, a composition of matter suitable for use as a permanent magnet comprising a rare earth – transition metal – boron alloy, wherein at least 30 weight percent of the rare earth content of the alloy comprises Pr, at least 50 weight percent of the transition metal content of the alloy comprises Fe, and the alloy contains more than 0.1 weight percent oxygen.

Applicants have closely considered the passages referred to by the Examiner and, indeed, the Akioka patent as a whole. The cited passages from Akioka, and the entire reference, do not support the Examiner's position, however. In fact, Akioka teaches away from using an oxygen content of more than 0.1 weight percent in the composition. For example, the cited passage at col. 9 reads:

The carbon content of the permanent magnet can be less than or equal to 400 ppm and the oxygen content is less than or equal to 1000 ppm. The magnetic performance tends to deteriorate when the carbon and/or oxygen content are outside of these values.

As will be appreciated the 1000 ppm amount mentioned in the above cited passage correlates to amounts of 0.1 weight percent oxygen. Accordingly, Akioka specifically limits oxygen amounts to *less than* 0.1 weight percent oxygen. In contrast, the claimed invention specifically utilizes oxygen amounts of more than about 0.1 weight percent oxygen. For example, in paragraph 16 between 0.1 to 0.2 weight percent oxygen is disclosed. The inventors have determined that magnets with about 1.2 percent oxygen are quite satisfactory.

Accordingly, Akioka does not teach or suggest the use of oxygen in amounts greater than 0.1 weight percent oxygen in the composition. Akioka cannot, therefore anticipate independent claim 1 and claims depending therefrom.

Rejections Under 35 U.S.C. § 103

The Office Action summarizes claims 10-13 as rejected under 35 U.S.C. §103(a) as being unpatentable over Akioka. Applicants respectfully submit that in view of the arguments set forth above, and particularly the fact that Akioka fails to teach using greater than 0.1 weight percent oxygen in the composition, claims 10-13 are patentable at least by virtue of their dependency from an allowable base claim. Accordingly, Applicants respectfully request the Examiner to reconsider the rejection.

Double Patenting

1st Grounds

The Office Action summarizes claims 14-16 as rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 20, 21 and 23 of U.S. Patent No. 6,518,867 (hereinafter “Laskaris ‘867”) in view of

Akioka. Applicants note that the Laskaris '867 reference would constitute prior art under 35 U.S.C. §102(a) given its relevant dates. Applicants believe that the Examiner may have intended to formulate the rejection under 35 U.S.C. §103. In any event, the subject matter of claims 14-16 is believed to be clearly patentable over the combination for the reasons summarized below.

The Examiner relied upon Akioka for disclosing the composition of the permanent magnet. Applicants respectfully submit that arguments stated for claim 1 with regard to Akioka the preceding section are applicable here as well. In particular, Akioka fails to teach or suggest the use of oxygen in amounts greater than 0.1 weight percent in the composition of the permanent magnet. Hence, Akioka fails to teach or even suggest the composition of the permanent magnet of the claimed invention, and indeed teaches away from higher oxygen levels.

Further, the Examiner relied on the secondary reference, Laskaris, for using the composition of the magnet of Akioka for the purpose of providing a MRI device with high energy performance characteristics. Applicants respectfully submit that Laskaris fails to overcome the deficiencies of Akioka with regard to the composition of the permanent magnet. Therefore, the combination of Akioka and Laskaris would not teach a person skilled in the art to use the composition of the permanent magnet of the claimed invention in a MRI device.

Accordingly, Applicants request the Examiner to reconsider the rejection of claims 14-16.

2nd Grounds

The Examiner also rejected claims 14-17 provisionally in view of copending application 10/309,146 in view of Akioka. Applicants will consider a possible Terminal Disclaimer should that be deemed appropriate later in prosecution. However, because the

rejection on this grounds is provisional, and the copending application is not allowed, Applicants note that should this be the only rejection remaining following the reconsideration requested herein, the rejection could not stand. Accordingly, Applicants request that the provisional rejection be held in abeyance pending reconsideration of the other rejections formulated by the Examiner.

3rd Grounds

Claims 21-26, 28 and 29 were also rejected on double-patenting grounds in view of U.S. Patent No. 6,525,634 (hereinafter “Laskaris ‘634”) in view of Akioka. Applicants note here again that that Laskaris ‘634 patent would otherwise constitute prior art under 35 U.S.C. §102(a). Accordingly, perhaps the Examiner intended to formulate a rejection under 35 U.S.C. §103. Nevertheless, the rejected claims are believed to be clearly allowable over the cited combination.

As noted above, Akioka fails to teach a magnetic composition that includes an oxygen content over 0.1 weight percent. The reference, indeed, teaches exactly the opposite: that oxygen contents over 0.1 percent are to be avoided.

It is unclear to the Applicants how the Examiner intended to apply Laskaris ‘634. Apparently the reference is cited only for teachings relating to an MRI device with high energy performance characteristics. In any event, Laskaris ‘634 does not supplement or compliment the teachings of Akioka in any way regarding the oxygen content of the magent material. Accordingly, the combination would not teach one skilled in the art all of the elements of independent claim 21. All of the claims recited on these grounds are therefore believed to be clearly patentable over the cited combination at least by virtue of this fact. Their reconsideration and allowance are requested.

Conclusion

In view of the remarks and amendments set forth above, Applicants respectfully request allowance of the pending claims. If the Examiner believes that a telephonic interview will help speed this application toward issuance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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